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Patent  
Case No.: 55814US004

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: CHOU, YEUN-JONG  
Application No.: 09/954751 Group Art Unit: 3723  
Filed: September 18, 2001 Examiner: Rachuba, Maurina T.  
Title: UNITARY BRUSH HAVING ABRASIVE COATED BRISTLES AND METHOD  
OF MAKING THE SAME

REPLY BRIEF ON APPEAL (37CFR§ 1.193 (b) (1))

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## CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR § 1.8(a)]

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12/27/04  
DateShwer J. Piehl  
Signed by:

Dear Sir:

This is a reply brief which responds to the Examiner's Answer mailed November 3, 2004.

Any fee required for filing this reply brief should be charged to Deposit Account No.

13-3723.

This reply brief is submitted in triplicate to address new grounds raised by the Examiner in the Examiner's Answer.

## REMARKS

The Examiner's Answer in section (11) of the Answer admits as follows:

"...Johnson disclose that the abrasive is molded throughout the bristle structure, and not adhered to the surface of the bristle. Barber, figure 4, teaches, in a unitary (unitary is defined as Having [sic] the nature of a unit; whole 1) brush, but not a brush with hub and bristles molded from the same mass of material, providing each bristle with an [sic] adhesive coating."

Application No.: 09/954751

Case No.: 55814US004

It is submitted that the term "unitary" brush as set forth in claim 1 has significant meaning. It means that the

"hub or body and bristles which are attached to the hub or body are formed of the same mass of material as the hub or body without adhesive bonding or mechanical fastening of bristles of the body."

See claim 1.

The Examiner's Answer then goes on to say:

"It would have been obvious to one of ordinary skill to have provided Johnson with the first and second coating of adhesive and abrasive coating, as taught by Barber, column 1, lines 39-47, to prevent the bristles from taking a set shape, softening and losing its effectiveness. Examiner's Answer page 4 (first full paragraph)."

It is submitted that this is mere speculation on the part of the Examiner and one skilled in the art would not modify Johnson et al. according to the teaching of Barber Jr., et al.

Johnson incorporates abrasive particles in the filaments rather than coating them on the surface of the filaments. By contrast, Barber et al. teach that the abrasive polymer filaments are coated with abrasive particles and must be cut, assembled, and adhered to a hub to provide a rotary brush.

It is submitted that one skilled in the art would not combine Barber, Jr. et al. and Johnson et al. to arrive at the claimed invention. Barber, Jr. et al.'s invention deals with formed filament cores that are coated with molten thermal plastic elastimer which contains abrasive particles to provide abrasive coated filaments.

Rather than forming abrasive brushes with a preformed core which includes filaments made of the same mass of material as the core, Johnson et al. incorporate abrasive filaments having an abrasive coating thereon into an abrasive brush, for example, as noted in Column 21, lines 49-62.

No mention is made in Barber, Jr. et al. of the type of unitary brush defined in the claims of the present application.

Application No.: 09/954751

Case No.: 55814US004

Johnson et al. would not want to make a brush by the method described in Barber, Jr. et al. On the contrary, Johnson et al.'s method of making the brush involves assembling the filaments into various types of brushes as described in the paragraph bridging Columns 3 and 4.

As can be seen, Barber, Jr. et al.'s method of making brushes and Johnson et al.'s method of making brushes are different and incompatible with each other and with the invention claimed in the present application. The office action indicates that the claims are not claiming a method, but a product produced by the various methods. Each of these methods would result in products which differ from one another. It is submitted that the Examiner's conclusion of obviousness is based solely on speculation and hindsight reasoning. Examiner argues that Barber, Jr. et al. expressly and most definitely provides the motivation to one of ordinary skill of the art by coating of abrasive to a pre-formed bristle. Barber, Jr. et al. merely describes coating filaments which are with an abrasive coating and not forming a filament and brush which includes filaments and a hub which are comprised of the same mass of material.

There is no suggestion to one skilled in the art to combine the teaching of Barber, Jr. et al. and Johnson et al. to arrive at the claimed invention.

Application No.: 09/954751Case No.: 55814US004**CONCLUSION**

For the foregoing reasons, appellants respectfully submit that the Examiner has erred in rejecting this application. Please reverse the Examiner on all counts.

**ORAL HEARING**

The undersigned hereby waives the right to appear at an Oral Hearing and requests that the board decide this matter based solely on the briefs.

Respectfully submitted,

12/27/04  
Date

By: Richard Francis  
Richard Francis, Reg. No.: 25,393  
Telephone No.: (651) 733-7519

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833